

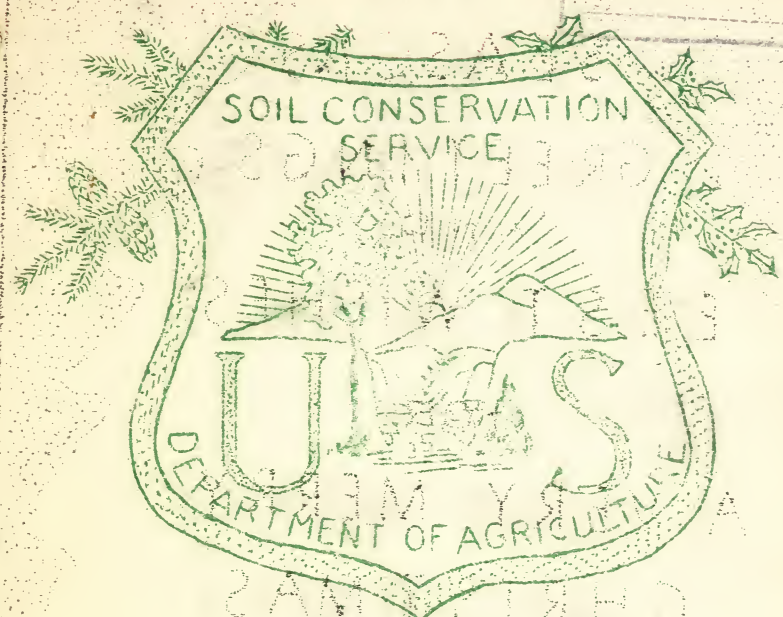
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COLORADO  
CONSERVANCY

DECEMBER 1935



THE  
SEASONS  
GREETINGS  
AND  
BEST WISHES  
FOR  
A VERY MERRY  
CHRISTMAS

FROM  
THE SOIL CONSERVATION  
SERVICE

COLORADO PROJECT

01-8

VOL. 1

DECEMBER

NO. 4

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Editor--J. S. Young

A. E. McClymonds

District Director

Contributors--Soil Conservation Staff

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### SAYS THE DISTRICT DIRECTOR

Colorado occupies an unusual position among the various states in relation to erosion control and soil conservation work. The occurrence during the spring of 1935 of repeated disastrous dust storms has given southeastern Colorado nationwide notoriety as the "Dust Bowl" of America. In addition to destroying land and personal property values, wind erosion has dealt widespread suffering and death to humans and livestock in this and adjacent states. It has become more than a state problem; it is a national problem, and has arisen as a result of improper land use, overgrazing on the range and several years of drouth. It therefore represents a serious threat to continued agriculture in the eastern plains of this state.

The Soil Conservation Service works mostly on privately owned lands. This means that methods of control must be worked out in a manner that the farmer can himself do. In order to be successful it must be worked out in such a manner that the farmer can make a better living than he has done before. Above all, it must be worked out so that there is very little loss of his top soil. This, I believe can be done in most instances where the soil, climate, vegetative cover and slope justify farming. Where it doesn't, it then seems to me to be the duty of the government to repurchase the land, and after repairing the damage that has been done by improper land use, forever keep it in grass or forest.



"The progress being made on the western soil-erosion demonstrations, which I have just visited, is most encouraging. Considering the brief period the work has been under way, the accomplishments thus far portend a veritable agricultural revolution - the throwing off of shackles of soil misuse and abuse that had their origin in a national misconception with respect to our supposedly inexhaustible supply of crop and grazing lands.

I saw unmistakable evidence that the hundreds of land users cooperating with the Service have come to understand the significance of cultivating and overgrazing all kinds of land, as if it all, steep and level, clay and sandy, were equally adapted to continuing productive use. The effective practices employed in the demonstration areas are beginning to trickle across the project boundaries. Farmers outside are beginning to work these now and fundamental soil protection methods into their system of land use.

In conclusion, my western swing convinced me that the fundamentals of practical erosion control through the use of the soil in accordance with its needs and adaptabilities are finding their way into the everyday practice of thousands of American farmers who a little while ago looked upon the word erosion as some vague expression familiar only to academicians. In retrospect, I find it difficult to understand for why so long we permitted vast areas, including some of the most fertile lands of America, to be washed away or blown away without evidencing any considerable interest, especially when it is considered that the methods of control now being used are so simple, so practical, and generally so inexpensive. Nothing is to be gained, however, by lamenting our failure to see and meet the problem 50 or 75 years ago. Now, finally, through this national program of coordinated, practical erosion control, and through the retirement of much erodible land to stabilizing cover under the program of the Agricultural Adjustment Administration, the path ahead to successful solution of the problem is clearly marked out. This western trip, which was my first opportunity to make anything like a comprehensive inspection of the field pro-

gram of the Service, has convinced me that our program is so sound, so practical, so effective, and so inexpensive that this sensible Nation will permit no obstacle to interfere with its progress. Everywhere I found that splendid cooperation was being received from the State Agricultural colleges, the county agricultural agents, the farmers, and local business men." 3

H. H. Bennett

Chief, Soil Conservation Service  
From "SOIL CONSERVATION", NOV., 1935

- - - SOIL CONSERVATION SERVICE - - -

#### THE DEPARTMENT OF EDUCATION AND INFORMATION

The Department of Education and Information is the nerve-center of news emanating from the Soil Conservation Service of Colorado. It publishes the "Colorado Conservancy"; it speaks to groups of farmers and ranchers and civic clubs; its office is open to discuss the problems of erosion; it conducts tours of the project; it furnishes exhibits at state and county fairs, takes pictures and movies of erosion and its control, conducts seminars, and is even now contemplating radio broadcasts--all this is an indefatigable effort to educate and cooperate with the farmer and rancher.

The above are the things that are seen and heard by the erosion-conscious citizens of the Columbine state, but there is much painstaking effort not known to the general public that goes on behind the scenes--the sifting of material submitted to the editor by the staff of the Soil Conservation Service (with a discerning eye he winnows the chaff from the wheat), so that only what is most applicable to the readers' knowledge and needs is presented by the "Colorado Conservancy"--the gathering of facts and figures to present the public at group meetings--the multiplicity of details entailed in arranging a tour to the satisfaction of the guests--the minute

4 care and thought in making an exhibit, so that a true graphic picture of erosion is embodied in the exhibit—the prodigal expenditure of time and effort of the staff photographer to get movies of real conditions extant and to depict on the screen remedies for this land malady--Erosion. Seminars are given every other Monday night in which a departmental head and his assistants give a talk on the work done in their department to the entire personnel of the Soil Conservation Service; thus the entire service is posted on the progress made in the various departments. Among other outstanding activities of the department are the educational meetings given at the regular projects, camp areas and others, the organization of Conservancy Districts, cooperation with state agencies, and general field contacts.

The Department of Education and Information also maintains a news service to all newspapers and periodicals which solicit articles for their publication so that their readers may keep abreast with the effective practices and progress of erosion control. The department also has a news-clipping service recording the cross-sectional opinions of the state pertinent to the Soil Conservation Service, thus keeping a finger on the pulse of John Rural Citizen.

The Department of Education and Information, and all the members of the Soil Conservation Service are eager to be of service to the farmer and rancher and wish to cooperate in any way relative to their problems of erosion in its manifold forms. Just as you seek counsel from an attorney to aid you in a legal dilemma, or consult a doctor for a diagnosis of the illness you are afflicted with, so, too, you should come for assistance to the Soil Conservation Service staff of trained, skillful workers to get expert accurate knowledge of remedying the maladies that your soil (through man-made abuse) falls heir.

Martin J. Murphy  
Department of  
Education and Information



## HARVESTING TREE SEED

One of the big problems confronting the Forestry Department of the Soil Conservation Service early last fall was to gather sufficient seed from species of trees and shrubs suitable for planting on the areas outlined for erosion control. Enough seed had to be collected to furnish approximately 10,000,000 trees and shrubs for setting out in the spring of 1937. Since most species of trees do not bear seed every year, enough had to be gathered this fall to insure a sufficient supply for several years in advance. In addition to the above a considerable quantity of seed was collected for shipment to other Soil Conservation Regions.

The common choke cherry (*Prunus melanocarpa*) was our first victim. About 9000 pounds of the cherries were gathered. These were soaked in water to loosen the pulp and then mashed thru a screen just large enough to allow the seed to pass. The pulp was then removed by flotation. 1600 pounds of choke cherry seed was recovered from the above quantity of cherries.

The next species on our list was the western yellow pine (*Pinus ponderosa*). This species is an evergreen and bears its seed in cones. Each cone is made up of a number of scales on the inside of which is located the seed. Each cone usually contains from 40 to 50 seeds. The cones were gathered when the seed was mature and while the cones were still green. They were opened by sunlight and shaken in a seed sheller to dislodge the seed. Each seed has attached to it a membranous wing which must be removed. Colorado blue spruce (*Picea pungens*), douglas fir (*Pseudotsuga taxifolia*) and pinon pine (*Pinus edulis*) were next in turn. The harvesting of blue spruce and douglas fir was similar to the yellow pine. About 800 pounds of blue spruce and 600 pounds of douglas fir was secured. No wings are present on pinon pine seed and consequently its harvesting is a much easier job. Six hundred pounds of this seed was

( harvested.

Seed was gathered from the following species of hardwoods:

1. Russian olive (*Elaeagnus angustifolia*)
2. Honey locust (*Gleditsia triacanthos*)
3. Green ash (*Fraxinus lanceolata*)
4. Osage orange (*Toxylon pomiferum*)

Most of this seed was picked from the trees, and has as yet to be cleaned.

A large quantity of seed has also been gathered from native shrubs such as three leaved sumac (*Rhus trilobata*), common snowberry (*Symphoricarpos occidentalis*), and mountain mahogany (*Cercocarpus parvifolius*). Small quantities of seed were gathered of almost all shrubs and trees in the region. These will be tried out experimentally in the hopes of finding some that will be of value in erosion control.

R. D. Anderson--Jr. Forester--Soil Conservation Service

\*\*\* BY WAY OF BIOGRAPHY\*\*\*

Dr. Walter C. Lowdermilk--Associate Chief of Soil Conservation Service--A real old-time scientist--A young man--World authority on erosion and run-off problems--Born in North Carolina, July 1, 1888--Studied in Park College--Then Arizona U--Became Oxford Scholar--Later studied at California U--where he took his Ph.D.--A forester with many years experience--used to sleep out in the open, and still likes plenty of fresh air--Had practical training in state forests of Germany and France--In charge of timber acquisition in the A.E.F.--member of special commission in Paris to assist American Peace Commission--Selected by University of Nanking to study conditions in China--His observations and discoveries gained widespread recognition--narrowly escaped death when attacked by communistic element in Nanking--Member of numerous professional societies--Delights, and is proficient in coining soil erosion phrases--Writes often and with technical skill--Loves his work--Is intensely interested in the West--An outstanding leader in Soil Conservation. .

Indian Ricegrass

Indian ricegrass, scientifically known by the name *Oryzopsis hymenoides*, is easily recognized in the field by the graceful blooming and fruiting panicle, which is illustrated by figure 1, in the accompanying drawing, and by the rather large plump seed clothed with silky white hairs, bearing a short straight awn, as shown in figure 2.

Indian ricegrass is most commonly found in the loose soils of the sandhills, or in disturbed situations where loose soil and good drainage have been produced by artificial conditions.

In Colorado, large stands occur near Wellington on coarse, sandy outwash soils; and near Roggen in the sandhills south of the South Platte River. Throughout the state, it is found along roads and especially in cinder deposits along railroad right-of-ways. In the United States, its range extends from North Dakota to Texas and west to the Pacific.

Indian ricegrass forms dense perennial clumps, with leafy stems 12 to 24 inches high. Although the leaves are narrow and rolled, they are abundant in quantity and are quite palatable. The herbage is relished by all classes of stock in the forepart of the season, and the seed is much sought by stock.

Side-oats Grama

The distinctive appearance of side-oats grama (*Bouteloua curtipendula*) makes it one of the easiest grasses to recognize. The name is suggested by the tall, slender, fruiting stalk with its numerous nodding spikelets, as shown in figure 4.



8 Side-oats grama can easily be distinguished from blue grama (described in "Colorado Conservancy" for October 1935) and the other grama grasses, because of its greater height and the numerous spikelets on each stalk. The height ranges from 1 foot to 6 feet, but is most commonly about 18 to 24 inches. Spreading by strong rootstocks, side-oats grama forms extensive stands of more or less thinly scattered tufts. The leaves are long and broad and abundantly produced, providing good forage when green or cured, although not quite so palatable to stock as blue grama.

In our regions, side-oats grama is almost entirely confined to limestone escarpments, steep rocky hillsides, and similar locations where the soil is coarse and immature. However, it is occasionally found in wet meadows, as near Flagler in the Republican River bottoms. Side-oats grama occurs in suitable habitats in most of the states of the union, excepting the northwestern states.

#### Needle-and-Thread Grass

Figure 6 illustrates the fruiting head of needle-and-thread grass (*Stipa comata*), which is sometimes called curly-awned needlegrass. As shown in the drawing, the head bears a considerable number of seeds, each of which has a long awn. These awns are 3 to 6 inches long, which is longer than the awn found on any of our other common grasses. When the seed is ripe, each awn becomes distinctly twisted near the base. These characters made the recognition of needle-and-thread grass very easy. Figure 5 shows a single seed with its awn.

Needle-and-thread grass forms scattered clumps each with several stalks 12 to 24 inches high. The leaves are slender and rolled. The herbage is pala-



table to stock in the spring, but soon becomes so tough as to be almost disregarded by foraging animals. The seed matures earlier than most of our perennial forage grasses, being mature by early or mid-July near Colorado Springs. 9

Needle-and-thread grass occurs throughout the western states in the dry soil of the mesas and plains. However, it is very sensitive to overgrazing and has practically disappeared from the ranges in Colorado. It occurs in roadsides, waste places, and in pastures which are not overgrazed.

Wayne W. Ward  
Agricultural Aide

IT COULD NEVER HAPPEN HERE-----

China is an old country. She was once the center and culture and intellectuality of the old world--the cradle of philosophy.

China was a fertile country--a country redundant with the good things of the soil.

China's soil was rich and productive. It was fecund, and produced an abundance of the necessities of life.

China had heavy forests covering her hills--clear rivers in the valleys--contented people in the homes.

Today China has little of the fertile soil left--her people are poor--her rivers are muddy--her forests are gone. Thousands of people are killed annually by floods.

And in America. We see floods in the East--in the Mississippi Valley--in the West. 35 million acres of land are already ruined by erosion.

LET US THINK-----COULD THIS HAPPEN HERE ???



Figure 1.

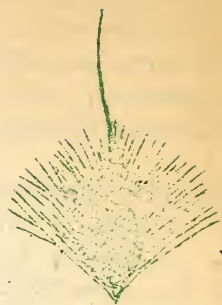


Figure 2.

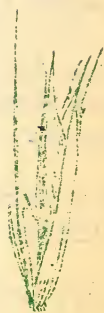


Figure 3.

Figure 1. Indian Ricegrass.

(*Oryzopsis hymenoides*)

Figure 2. Floret of Indian Ricegrass.

Figure 3. Floret of Side-Oats Grama.

Figure 4. Side-Oats Grama.

(*Pectoloua orthipendula*).

Figure 5. Lemma of Needle-and-Thread.

Figure 6. Needle-and-Thread. (*Stipa comata*)

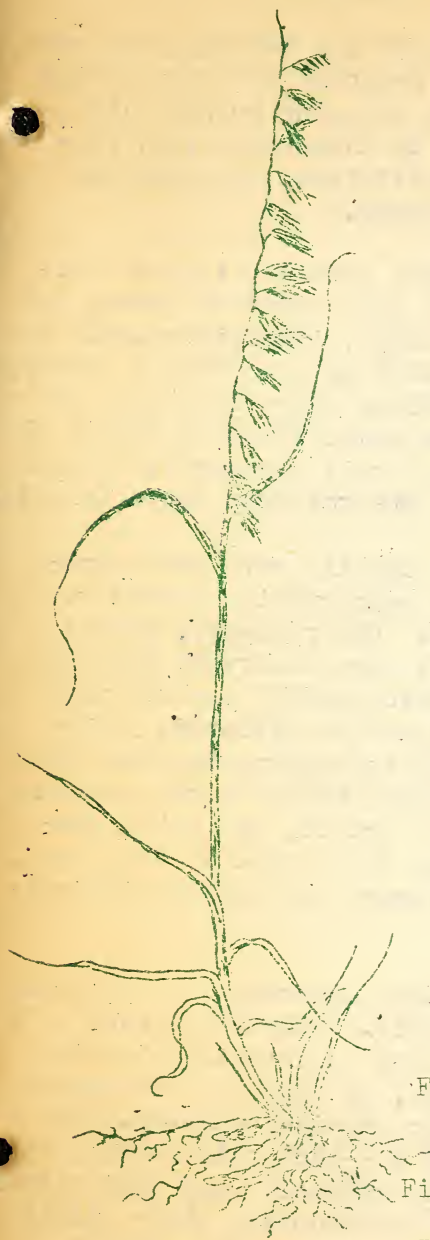


Figure 5.

Figure 4.

IMPORTANT



Figure 6.

Agronomy Division.  
Series 3.

NATIVE GRASSES.

Pastures with "permanent waves" are becoming the rule in areas where soil conservation programs are functioning in Colorado. Native pastures are becoming veined with small ditches, approximately 8 x 10 inches in size, constructed on a zero grade around hillsides, as potential reservoirs against erratic rainstorms.

The eastern plains of Colorado normally receive sufficient rainfall to accommodate a good stand of grass, but due to steep slopes in many instances, impervious soils in others, and lack of grass and litter as a buffer to beating rain, rain water hastens into gullies where it can do the land no good. Since water is the chief limiting factor of forage production, the sponsors of soil conservation began searching for methods of holding the raindrop where it falls.

Nature, if unmolested, will usually work out a program of control; so the sages of conservation looked to nature for a remedy and found it. Old roadways, trails and plow furrows through pastures were observed, and when on the level or a gently grade were usually covered more luxuriantly than adjoining areas not so affected. Conservation engineers were not long in copywriting the idea for their use, and now small ditches built on the contour, resembling a succession of snake trails, are being constructed to hold torrential rains that normally flow away, depriving pastures of needed moisture and causing destruction along drainageways.

The contour ditches are spaced according to steepness of slope and penetrability of soils. Only 20 percent of a 3-inch rain falling in 4 or 5 hours is actually absorbed by most soils in eastern Colorado, as they do not receive moisture readily because of their chemical make-up. On bare ground, about 80 percent of a 3-inch rain falling in a few hours runs off to devastate valuable land down stream. Soil Conservation Engineers are constructing these ditches so they will hold a 3-inch rain falling in less than 5 hours, reversing the former situation and allowing practically 100% percolation.



On barren, plowed fields, to be returned to pasture; and on denuded ranges, the agronomists are seeding those contours to adapted native grasses, and those plants will eventually spread to cover the intervening areas, provided grazing practices and moisture conditions are favorable. It is expected that increased moisture held in these contour ditches will increase the stand and production of grass and resod the ditches, leaving a permanent seeded buffer to hold water for long times to come.

On gentle slopes and bottom land, many of the contour ditches are constructed on a slight grade, with occasional breaks in the lip, hereby deploying collected waters over these lands, setting up an automatic irrigation system which will greatly increase grass production.

Before a stockman welcomes the ripping out of crooked strips of sod on his pasture, he wants to know whether this program will work. At Springfield, Colorado, a 1 and 1/2-inch rain penetrated 19 inches on a treated pasture, while on an adjoining untreated one the moisture penetration was only 5 inches and the remainder ran off impervious soils into gullies. From Texas comes some information that many of the ditches completely sodded over in 2 years, and that treated pastures were in several instances capable of carrying twice the stock that adjacent untreated pastures could handle.

The contour ditch is merely an item stolen from nature to be used by man in speeding pasture recovery.

B. W. Allrod  
Assistant Range Examiner

"A true forest is not merely a storehouse full of wood, but, as it were, a factory of wood, and at the same time a reservoir of water. When you help to preserve our forests, or to plant new ones you are acting the part of good citizens."

---Theodore Roosevelt---

SMOKE GETS IN YOUR EYES

Many years ago our first Americans, the Redmen, used signals of smoke for the purpose of conveying messages to their fellow tribesmen. These signals were used as a means of calling tribal councils and often the result of these councils was "war". These wisps of smoke were discernible across beautiful plains and valleys luxuriant with vegetation and teeming with animal life, truly a land of unlimited resource and opportunity.

A century later more clouds arose, not the portentous smoke signal of the Indian calling his tribesmen to war, but the foreboding challenge of an outraged Nature, sounding an ominous warning to the citizens of this country who, in their mad moil for riches, have long scoffed at this harbinger of disaster. These minatory clouds of the nation's strength--topsoil--are the substance from which all life is originated and sustained, but through neglect and misuse, this great creative force has become a boomerang that threatens to destroy us. Through improper land use we have destroyed the vegetation whose roots reached out like tentacles clutching the precious soil and retaining the lifegiving moisture. Today this denuded land is swept by ravaging blasts of death, wreaking incalculable havoc, removing our sustenance and leaving in its wake, ruined homes and parsimonious land.

The tocsin of war has sounded. The clarion cry to "save the soil" is echoed and re-echoed throughout the nation. At last we are cognizant of the fact that America is face to face with the most ruthless public enemy No. 1 in the annals of its history. With passive resistance, we have suffered irreparable losses from this mighty inimical force. Had any nation in the world encroached upon us as erosion has, had they dared to invade our shores, the eagle would have screamed in defiance, and we would have regimented our forces to throw back the onslaughts of the ambitious foe.

We have long looked on with dismay and, alas, in many cases with indifference at the heavy toll the adversary



erosion has exacted from us. Now we are aware of the awful strength of the enemy and are taking measures to prevent further cancerous inroads of erosion and to remedy the evils already wrought. 15

Let us swing into line and march shoulder to shoulder in a solid phalanx, pledged to repulse this Frankenstein of the soil and rid these United States of the most costly enemy we have ever faced--Erosion.

M. H. Weaver, Department of Education and Information

#### REGIONAL AND NATIONAL CHIEFS VISIT PROJECT

During the week of Dec. 9 to Dec. 13, Project C1-8 was singularly honored by the presence of eight men, all national, regional or project chiefs.

The men present were Dr. W. C. Lowdermilk, National Associate Chief of the Soil Conservation Service, Dr. Maurice Donnelly, National Assistant Conservator, Mr. Russell Lord, staff writer for the Country Home Magazine, now preparing a national bulletin for the Service, Hugh G. Calkins, Regional Conservator for this region, Richard Eoke, Regional Chief of Education and Information, Dr. H. V. Geib, principle conservator in charge of research for Texas, H. H. Finnell, Regional Director of Dalhart, Texas, and F. L. Duley, Director of Mankato, Kansas.

At the seminar of Dec. 11, short talks were given by these regional and project chiefs. Dr. Lowdermilk's talk, the principal one of the evening, was devoted to a broad consideration of the program as a national institution, and the importance of each man in this program. One of his most effective remarks was that today the continental boundaries of the United States enclose what is now our national homestead--there are no new land frontiers--and we must now devote our efforts to preserving this basic land resource. It was his opinion that the withdrawal of the public domain from homestead entry, and the establishment of the Soil Conservation program represented a mark in American history, inaugurating a new era of national policy. During the time spent here, the chiefs visited several of the project areas, including Black Squirrel Creek, Cherry Creek, and the Jimmy Camp ECW area.

DUST

The following notation is from Camp SCS-5-C at Springfield. It needs no explanation--the story speaks for itself.

Dust ravages of this magnitude is one of the problems confronting the Soil Conservation Service. It is no easy task--the problem is complex and difficult. But--there is a solution.

This solution is, essentially, the retention of the rainfall where it falls, and a restoration of the vegetative cover over the land. Plainly this is a task of real proportions, and is one that cannot be consummated in a short space of time. It is a program that must of necessity extend over a space of years, and each year of this span we must work with nature, and work hard, to achieve our goal--the alleviation of the menace of Dust.

-----

"We have had many dusters since coming to the Springfield area, but Monday, November 18, we experienced one such as the natives had told us about. I did not really know whether to believe them, but I believe they are all honest people down here now. It was very pleasant at eight o'clock in the morning; about ten o'clock the wind started blowing and blew rather hard all morning. At noon I asked the foremen what they thought about going to work; they said we have worked on worse days than this, which we have, since we have not lost a day's work in this camp so far. About three-thirty the dust was so bad we could not see. Inside the buildings we all put on respirators and goggles. The dust settled over everything. Visibility was so poor one could not see across the room. The static electricity was so bad it was jumping from the stove pipe to the safety flue, a distance of about one-half inch. One foreman came in who had started from the field ahead of the worst part of it. That left four truck loads of boys out. Soon another pulled in, the truck motor dying just as they arrived, and could not be started until the next morning, when we found so much dust in the distributor it could not run.



Thinking this had happened to the other trucks, I sent 17  
the mechanic and a foreman out in another truck to help  
them in. They met them on the road, lights on, and just  
crawling along. They had had trouble starting the trucks,  
and before they could, it was necessary to ground them by  
dragging a chain or they would go dead. I now have a  
ground chain on each truck for this purpose. The boys  
stated they didn't mind the dust so much, but when it  
started throwing large particles of dirt at them, that  
was too much. The air was so full of dust you could not  
see the ground you were standing on. This lasted about  
two hours. As soon as the duster had stopped every one  
was shoveling and sweeping out, cleaning bedding and mak-  
ing ready for the night. The evening meal was postponed  
a short while until the dust could be skimmed off the cook-  
ing food, and all dishes washed again.

H. G. Boehler

Superintendent Camp SCS-5-C  
Springfield, Colorado

- - - SOIL CONSERVATION SERVICE - - -

Mr. Jarrett, the staff photographer, accompanied by  
Mr. Young, editor of the COLORADO CONSERVANCY devoted a  
week's time taking movies of erosion conditions in the East-  
ern and Southern Parts of the state and the headwaters of  
important drainage areas.

They shot pictures of erosion in its many forms, and  
then took movies of the types of work being done to stem  
the tide of erosion.

Despite the inclement weather they encountered, they  
secured excellent movies which were first shown December  
2nd at Denver to the National Emergency Council. It in-  
trigued the interest of the chiefs of all the federal  
agencies in Colorado assembled there. In the future,  
this film will be shown on request to group meetings of  
any type.

CAMP ACTIVITIES: SOIL CONSERVATION SERVICE

Camp SCS-6-C: Colorado Springs, Colo.: During November, there has been a continuation of the work of the previous months; no new projects being initiated. The last of the five experimental plots was completed early in the month. The main work has been the construction of dams and contour furrows, and also the construction of gradient furrows and water spreaders at the end of the furrows. Contour furrowing was resumed on the E. A. Pring area; this work, due to the roughness of the land, requiring a large amount of hand labor. The slow and tedious work of digging the water-line ditch and laying the pipe for the water supply system for the Monument Nursery continued without interruption. Hard ground and rock have made this work particularly difficult. The large Lewis dam with concrete reinforced spillway continues as a project, some extra work such as that of building clay core walls on the south end of the dam. Throughout the month a survey crew has continued its work of gathering data for base maps. Altho the month has brought considerable cold weather, there has been little snow, and the structures built to date have met no test, and probably will not until the Spring rains.

From report of W. B. Colwell, Project Supt.

Camp SCS-9-C Elbert, Colorado: Work by this camp was started November 4th, the conditioning period being over and the enrollees being pronounced physically fit for work on that date. Two crews were put to making contour furrows on the Carnahan place, one crew was put to work on a timber stand on the Carver place with the idea of getting out logs for building a corduroy road across Kiowa creek to make trucking over the creek easier, and another crew has been working all month on improvement and maintenance work on the area around the camp. In all cases the work was taken slowly at first until the men became accustomed and hardened to the work. At present, the work has been speeded up, and is being done rapidly and efficiently. Using the Kiowa county records, correct land titles have been looked up on all land controlled by the



the camp. The survey crew has laid out water-hole dams, 19 contour furrows, and rock checks on the Carnahan place, and contour furrows on the Thornton. Several tests for water have been made, some very successful. Cooperation with the Army has been highly satisfactory; the morale of the enrollees has been high; and the reception of the Service by the community has been enthusiastic.

From report of R. V. Prink: Supt:

Camp SCS-5-C Springfield, Colorado: On November 18 a real dust storm hit the area, causing all work to be stopped, disabling the trucks, and filling the camp with dust. Of the many dusts encountered, this was the worst. This storm tested some terraces on the top of a hill, and it was gratifying to note that these terraces held well, and broke the ground currents so that drifting between the terraces was not very great. Terracing is now being done on cultivated fields, using a borrowed grader and our own Cletrac tractor. Several types of educational classes are in progress, there being one under foremen F. R. Stansbury, and W. S. Caton in Soil Conservation, one under Paul J. Gleason in surveying, and one in auto mechanics under R. W. Smith. The attendance in all has been good. The Commanding officer, Lieut. Leffingwell is being transferred to district headquarters, his place to be taken by Lieut. P. O. Sandberg of Red Feather Camp.

Camp SCS-4-C Cheyenne Wells, Colo: The first dams actually on the project were constructed--one, the smaller, being 6 feet high and 132 feet long. Tests were made with water to determine the approximate shrinkage on dikes of contour furrows. Maximum was 20%. On section 17 there are 10 contour furrows, 3 8/10 miles long without a break. A quarry of fair rock has been opened 11 miles west of camp for Dam construction. A serious problem in the area is that it is in the open range country, there being at present a band of sheep just north of the project, the owner indicating no desire to cooperate with the service. In cooperation with Mr. Pethram, demonstration areas of Tamarisk are being planted in the camp area. The first Field Day was very successful, and with Mr. Eascom administering, Conservancy organization was started.

A NOTE ON SEMINARS

Last Wednesday evening at 8:00 P.M., the sixth staff seminar meeting was held in the Drafting Room under the direction of the Dept. of Education and Information.

This seminar was conducted by the above mentioned department, and consisted of a resume of the work of this department in its various fields of activity. The feature of the program was a talk by Dr. W. C. Lowdermilk, Associate Chief of the Soil Conservation Service. Dr. Lowdermilk reviewed the activities of the Service throughout the Nation, pointing out conditions as they prevail in various sections of the country; the variety of methods required to meet successfully these erosion conditions, and the progress being made in each district. The talk was very instructive to the members of the staff, and the members counted themselves extremely fortunate to be able to hear first hand from a man of Dr. Lowdermilk's knowledge and ability of the nation-wide work of the Soil Conservation Service.

A one reel motion picture taken during the last month by Photographer Jarrett and Associate Agriculturist-Young, was shown which depicted certain erosion conditions in the area, and what the Soil Conservation Service is doing to combat and control these conditions. The picture made its initial showing before the Colorado Emergency Council where it was received with much favor.

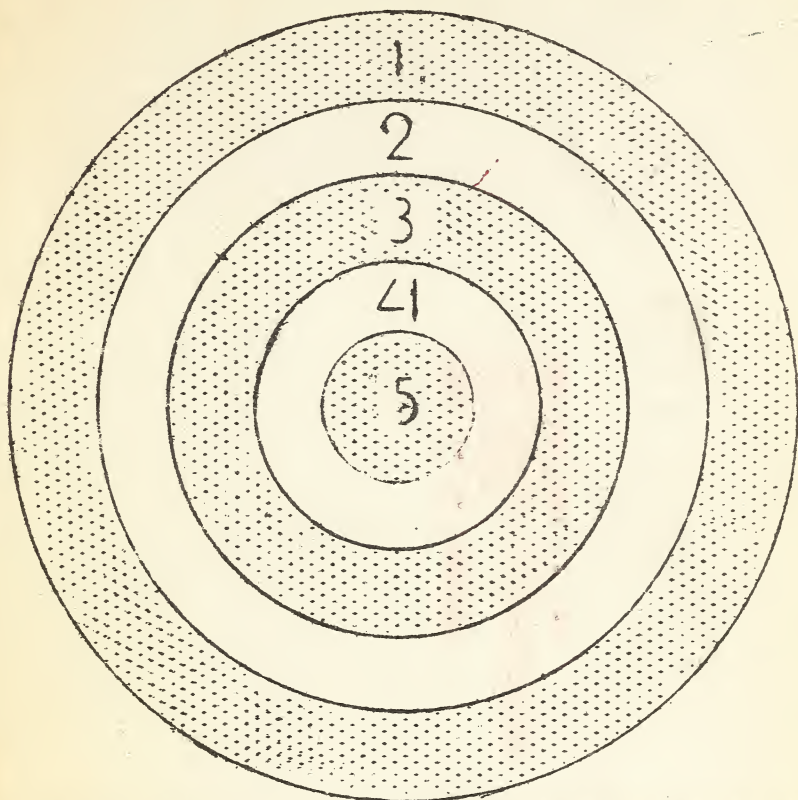
Previous seminars have been conducted by the following departments: Soils, Engineers, Agronomy, Range Management, and Forestry, all of which were well attended by the Soil Conservation Service Staff.

In as much as the Seminars allow members of the various departments to get together; become better acquainted with one another; hear reviews of departmental work, and better correlate their own work with other departments, it is felt that the Seminars serve a very useful and constructive purpose for the general benefit of the Service personnel.



# THE TARGET

WHAT IS YOUR SCORE?



- 1-Old Method of Cultivation: Lost Top Soil--Wind Swept Fields--Gullies--Impoverished Land.
- 2-Range Management: Partial Erosion Control.
- 3-More Complete Control: Terracing, Contour Plowing--Rotation of crops and Grazing.
- 4-Conservation and Control: Terracing, Contouring, Gully Repair--Rotation of Crops and Grazing--Reseeding.
- 5-Complete Control: THE BULLS EYE: Terracing, Contouring, Gully Repair-Check Dams-Reseeding of Grasses-Water Spreaders-Rotation of Crops and Grazing-Cooperation

LET'S HIT THAT BULL'S EYE!!!

UNITED STATES

DEPARTMENT OF AGRICULTURE

SOIL CONSERVATION SERVICE

COLORADO SPRINGS, COLORADO

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